What is claimed is:

1. A support for an anode system in contact with a molten salt bath in an electrolysis apparatus, said support comprising a 50% to 95% dense castable refractory subject to attack by gases from the bath, where the refractory comprises refractory material and from 2 wt% to 20 wt.% of metal fibers, where the metal fibers are from 1 cm to 4 cm long and have a length to thickness ratio of 500:1 to 20:1.

2. The support of Claim 1, comprising at least 55% of alumina castable refractory.

3. The support of Claim 1, wherein the metal fibers are selected from the group consisting of stainless steel, nickel alloy, copper alloy and mixtures thereof.

4. The support of Claim 1, wherein the metal fibers are stainless steel and the metal fibers have a coating comprising an oxide of phosphorous.

5. The support of Claim 1, wherein the metal fibers have a concave cross-section.

6. The support of Claim 1, wherein the electrolysis apparatus is an aluminum producing apparatus, the molten metal salt bath is molten cryolite at about 850°C to 1050°C, and the gases include HF and O_2.

7. A support assembly for an inert anode system comprising at least one inert anode in contact with a molten salt bath in a metal electrolysis apparatus, where the at least one inert anode is attached to a support system having an outer side subject to attack

by gases from the bath, the support system consisting essentially of a 50% to 95% dense castable refractory material having from 2 wt% to 20 wt% of metal fibers dispersed therethrough, where the fibers are from 1 cm to 4 cm long, and where no more than 20 fibers per sq. cm. on average protrude through the outer side of the support system.

8. The support assembly of Claim 7, comprising at least 55% alumina castable refractory.

9. The support assembly of Claim 7, wherein the metal fibers are selected from the group consisting of stainless steel, nickel alloy, copper alloy and mixtures thereof.

10. The support assembly of Claim 7, wherein the metal fibers are stainless steel and the metal fibers have a coating comprising an oxide of phosphorus.

11. The support assembly of Claim 7, wherein the metal fibers have a concave cross-section and a length to thickness ratio of 500:1 to 20:1.

12. The support assembly of Claim 7, wherein the electrolysis apparatus is an aluminum producing apparatus, the molten salt bath is molten cryolite at about 850°C to 1050°C, and the gases include HF and O_2.

13. The support assembly of Claim 7, wherein the support consists essentially of 3 wt.% to 10 wt.% stainless steel fibers and from about 1 wt.% to about 45 wt.% filler, with the remainder a mixture of an Al_2O_3, SiO_2, CaO material system having a maximum service temperature of at least 1200°C.

14. The support assembly of Claim 7, wherein the fibers have a non-circular cross-section and have a generally random dispersal arrangement to themselves, the fibers are present at from about 3 wt% to 10 wt.% and the support system is 50% to 95% dense.

15. The support assembly of Claim 7, wherein the fibers have a length to thickness ratio of 100:1 to 50:1

16. The support assembly of Claim 10, wherein the phosphate coating is from about 0.5 nanometers to about 5 nanometers thick.

17. An electrolytic reduction cell for the production of aluminum comprising at least one inert anode attached to a castable refractory support where the anodes and support are in contact with a molten salt bath in an electrolysis apparatus, where the support comprises a 50% to 95% dense castable refractory subject to attack by gases from the bath, where the refractory comprises refractory material and from 2 wt.% to 20 wt.% of metal fibers, where the metal fibers are from 1 cm to 4 cm long and have a length to thickness ratio of 500:1 to 20:1.

18. The cell of Claim 17, wherein the support comprises at least 55% of alumina castable refractory.

19. The cell of Claim 17, wherein, in the support, the metal fibers are selected from the group consisting of stainless steel, nickel alloy, copper alloy and mixtures thereof.

20. The cell of Claim 17, wherein, in the support, the metal fibers are stainless steel and the metal fibers have a coating comprising an oxide of phosphorus.

21. The cell of Claim 17, wherein, in the support, the metal fibers have a concave cross-section.

22. The cell of Claim 17, wherein the electrolysis apparatus is an aluminum producing apparatus, the molten metal salt bath is molten cryolite at about 850°C to 1050°C, and the gases include HF and O_2.

23. An electrolytic process for making a metal where an electrolyte reduction cell comprising at least one inert anode is attached to a castable refractory support where the anodes and support contact a molten salt bath in an electrolysis apparatus at up to about 1000°C and where corrosive gases contact the inert anode and the support, and where metal is deposited from the molten salt bath, where said support comprises a 50% to 95% dense castable refractory subject to attack by gases from the bath, where the refractory comprises refractory material and from 2 wt.% to 20 wt.% of metal fibers, where the metal fibers are from 1 cm to 4 cm long and have a length to thickness ratio of 500:1 to 20:1.